

KOL'CHENKO, A.V., kand.tekhn.nauk; SILIN, A.A., inzh.

Effect of axial load on rubber-metal footstep bearings. Trudy
VNIIBT no.1:50-56 '58. (MIRA 11:12)
(Turbodrills)

KOL'CHENKO, A. V., kand.tekhn.nauk; SILIN, A.A., insh.

Load-carrying capacity of supports with plane-parallel effective areas. Trudy VNIIT no.1:57-60 '58. (MIRA 11:12)
(Turbodrills)

KOL'CHENKO, A.V.; SILIN, A.A.

~~Use of rubberized shaft bearings. Rech. transp. 17 no. 2:22-24
F '58.~~

(MIRA 11:2)

(Shafts and shafting)

7(6)

AUTHORS: Kol'chenko, A. V., Silin, A. A. SOV/32-24-12-29/45

TITLE: Visual Method for Investigating the Abrasive Friction on Rubberized Bearings (Vizual'nyy metod issledovaniya abrazivnogo treniya v gummirovannykh podshipnikakh)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 12, pp 1494 - 1495 (USSR)

ABSTRACT: Several machines and mechanisms utilize rubber bearings in water which can become contaminated and cause abrasive friction and wear on the bearings. For this reason a reliable method for investigating this wear is very important. The most suitable appears to be the visual observation of particles pressed into the friction surface. For this purpose a special apparatus was developed (Figure) for the visual study of the mechanism of friction and the wearing of elastic and inflexible surfaces lubricated with water containing abrasive particles. A steel ring was replaced by a stalinite ring in the bearing being investigated so

Card 1/2

Visual Method for Investigating the Abrasive Friction on SOV/32-24-12-29/45
Rubberized Bearings

that with both the stalinite ring and the rubber bearing fastened on the testing apparatus the bearing turned on the stationary ring. The lubricating water containing suspended quartz sand (particle size 0.1 - 1.0 mm) was added to the friction system thus produced. The load on the friction surface resulted from an (indirect) hydraulic pressure which was measured with a manometer (6 kg/cm^2). It was observed that the sand particles moved about 100 times slower than the turning of the bearing. The most aggressive particles were found to be those which because of their size had to cease to rotate between ring and bearing and those possessing a greater mechanical resistance. There is 1 figure.

ASSOCIATION:
Vsesoyuznyy nauchno-issledovatel'skiy institut burovoy tekhniki (All-Union Scientific Research Institute of Drilling Technique)

Card 2/2

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4

A. V. Silin
KOL'CHENKO, A.V.; SILIN, A.A.

Means for increasing wear-resistance of turbodrill pivots, Neft,
khuz. 36 no.1:9-13 Ja '58. (MIRA 11:2)
(Turbodrills)

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4"

KOL'CHENKO, A.V., kand. tekhn. nauk; SILIN, A.A., inzh.

Reducing the friction in rubber bearings at starting. Vest. mash.
38 no.3:27-28 Mr '58. (MIRA 11:2)
(Bearings (Machinery))

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4

KOL'CHENKO, A.V., kand. tekhn. nauk.; SILIN, A.A., kand. tekhn. nauk.

Possibilities of using self-adjusting elastic pivot journals.
Vest.mash. 38 no.10:20-22 O '58. (MIRA 11:11)
(Bearings (Machinery))

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4"

GUSMAN, Moisey Timofeyevich; KOL'CHENKO, Aleksandr Vasil'yevich; SILIN, Askol'd Aleksandrovich; RASTOVA, G.V., vedushchiy red.; FEDOTOVA, I.G., tekhn.red.

[Rubber-metal turbodrill bearings] Resino-metallicheskie podshipniki turboburov. Moskva, Gos.nauchno-tekhn.izd-vo nef't. i gorno-toplivnoi lit-ry, 1959. 105 p. (MIRA 13:3)
(Bearings (Machinery)) (Turbodrills)

15.636015.9440

25672

S/122/60/000/005/005/017
A161/A130AUTHORS: Kol'chenko, A. V., and Siliin, A. A., Candidates of Technical Sciences

TITLE: A contribution to the elastic slide bearing design problem

PERIODICAL: Vestnik mashinostroyeniya, no. 5, 1960, 25-28

TEXT: The elasticity of rubber and plastics preventing the maintenance of the lubricating film is the main reason why these materials are being used for low-load and low-velocity bearings only. Experiments have been carried out at Laboratoriya burovых mashin Ukrniiprojekta (Drilling Machines Laboratory of Ukrniiprojekt) (Kiev) and VNII burovoy tekhniki (All-Union Scientific Research Institute of Drilling Techniques) (Moscow), and a new design principle is suggested. Its essence is explained on the example of a rectangular rubber pad between metal plates (Fig. 2: a - pad under N load with friction in contact, b - under same load but without friction, c - the new design principle). The compression modulus E of rubber is highest in the mid and low on the surfaces, and tight contact between rubber and metal prevents penetration of lubricant. But when the intake end of the pad protrudes and is not supported from beneath, a wedge space

X

Card 1/4

25672

S/122/60/000/005/005/017

A161/A130

A contribution to the elastic ...

will form and lubricant will penetrate. Experiment designs were tested in conditions corresponding the service of real machines with vertical shaft under up to 6,000 load, on 220 mm diameter footstep bearing. The load characteristics (Fig. 3) are: 1 - bearing with elastic pads put into metal sockets, 2 - bearing with free pads, 3 - bearing with metal pads (for comparison). The friction factor on rubber pads did not exceed 0.002, and friction losses were 1.5-2 times lower than on metal bearing with oil for lubricant. The mechanism of lubricant-trapping into the load-carrying portion of elastic bearings is complex, and it is being studied. The theoretical calculation of deformations is difficult, for the Hooke's law is not applicable for the case, but the rigidity of pads may be varied (e.g., by fixing in sockets without vulcanization). Six design versions can be used (Fig. 4). New turbodrill bearings of such design have been tested in 1959-1960 and proved better than conventional. It has been proven that highly effective rubber-metal slide bearing designs with water lubrication are possible. Such bearings can be used in the first line for high-power turbines, ship transmissions, heavy-duty pumps. There are 4 figures and 3 Soviet-bloc references.

Card 2/4

KOL'CHENKO, A.V., kand.tekhn.nauk; SILIN, A.A., kand.tekhn.nauk

Study of the effectiveness of lubricating flexible hydrodynamic bearing discs. Nauch.zap.Ukrniiproekta no.4:3-19 '61.

(MIRA 15:1)

(Lubrication and lubricants)

(Oil well drilling--Equipment and supplies)

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4

KOL'CHENKO, A.V., kand.tekhn.nauk; SILIN, A.A., kand.tekhn.nauk

Some results of study and construction operations for making new
turbodrill bearing discs. Nauch.zap.Ukrniiproekta no.4:20-30
'61.

(MIRA 15:1)

(Turbodrills)

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4"

KOL'CHENKO, A.V., kand.tekhn.nauk; ZHIDOVTSOV, N.A., kand.tekhn.nauk

Results of industrial testing and introduction of turbodrill
axial supporting elements with replaceable rubber parts. Nauch.
zap. Ukrniiproekta no.9:3-14. '62. (MIRA 16:7)
(Turbodrills)

KOL'CHENKO, A.V., kand.tekhn.nauk; ZHIDOVTSOV, N.A., kand.tekhn.nauk;
OSINCHUK, Z.P., inzh.

Effect of hydrostatic pressure on the drillability of rocks.
Nauch. zap. Ukrniiproekta no.9:15-23 '62. (MIRA 16:7)
(Oil well drilling) (Oil well drilling fluids)

KOL'CHENKO, A.V., kand.tekhn.nauk

Experimental evidence of elastic hydrodynamic effect. Nauch. zap.
Ukrniiproekt no.9:24-28 '62. (MIRA 16:7)
(Turbodrills) (Lubrication and lubricants)

KOL'CHENKO, A.V., kand.tekhn.nauk; SILIN, A.A., kand.tekhn.nauk

Manufacturing stands for testing radial supporting elements and
thrust bearings. Nauch. zap. Ukrniiproekta no.9:29-32 '62.

(MIRA 16:7)

(Oil well drilling—Equipment and supplies)

5

ZHIDOVTSOV, N.A., kand. tekhn. nauk; KOL'CHENKO, A.V., kand. tekhn. nauk

Wearing out diamond bits in rotary drilling. Neft. i gaz. prom.
no.2:23-28 Ap-Je '63. (MIRA 17:11)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut
ugol'noy, rudnoy, neftyanoy i gazovoy promyshlennosti UkrSSR.

KOL'CHENKO, A.V., kand. tekhn. nauk; OSINCHUK, Z.P.

New design for the radial supports of turbodrills. Neft. i gaz.
prom. no.4:69-71 O-D '63. (MIRA 17:12)

1. UkrNIIgiproneft'.

KOL'CHENKO, A.V.; OSINCHUK, Z.P.

Improved radial rubber-metal turbodrill supports. Mash.i neft,
obor. no.12;3-6 '63.
(MIRA 17:4)

1. UkrNIIgiproneft'.

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4

KOL'CHENKO, A.V., kand.tekhn.nauk; OSINCHUK, Z.P., inzh.

Elasto-rigid part joints in sliding bearings and other machine units. Mashinostroenie no.1:31-34 Ja-F '64. (MIRA 17:7)

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4"

KOL'CHENKO, A.V.; TITARENKO, A.I.

Irregularity in the distribution of the load in the multiple ~~axial~~
support of a turbodrill. Neft. i gaz. prom. no.2:21-23 Ap-Je '65.

(MIRA 18:6)

KOL'CHENKO, A.V.; OSINCHUK, Z.P.

Design of a turbodrill nipple with a removable elastic lining.
Mash. i neft. obor. no.6:3-6 '65. (MIRA 18:7)

1. Institut "UkrNIIgiproneft", Kiyev.

KOL'CHENKO, A.V.; TITARENKO, A.I.

Uneven loading on the stages of the supporting elements of a turbo-drill and means for eliminating it. Mash. i neft. obor. no.8:8-11 '65.
(MIRA 18:9)

1. UkrNIigipronenft'.

KOL'CHENKO, A.V.; PONYAKOVSKIY, V.I.; TITARENKO, A.I.

Using freezing packers in oil and gas wells. Neft. i gaz.
prom. 3:37-39 Jl-S '65. (MIRA 18:11)

KOL'CHENKO, A.V.; OSINCHUK, Z.P.

Design of a screw throttle system for turbodrills. Mash. i
neft. obor. no. 7-8-11 '65. (MIRA 18:12)

1. "UkrNIIGiproneft", Kiyev.

ACC NR: AP7002603

(A, N)

SOURCE CODE: UR/0413/66/000/023/0110/0110

INVENTORS: Agayev, A. I.; Kol'chenko, A. V.; Malkin, B. D.; Kuznetsova, I. I.;
Nikitin, G. M.; Gusman, M. T.

ORG: none

TITLE: A stepped rolling axle support. Class 47, No. 189254

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 110

TOPIC TAGS: antifriction bearing, ball bearing, bearing race

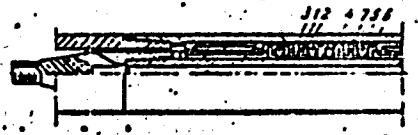
ABSTRACT: This Author Certificate presents a stepped rolling axle support containing thrust roller bearings, spacing collars, and an annular elastic element (see Fig. 1). To eliminate loose axle holes and to increase the efficiency under dynamic loads, the ball bearings of the support are placed in two rows, with the balls running between the outside flanges and the internal flange. The annular elastic element is mounted on each side of each ball bearing at a small distance from a spacing ring. A split bushing is placed between the inner flanges of the corresponding ball bearings.

Card 1/2

UDC: 621.822.3

ACC NR: AP7002603

Fig. 1. 1 - balls; 2 - outside flange;
3 - inner flange; 4 - annular
elastic element; 5 - space;
6 - spacing ring; 7 - split
bushing



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 05Mar66

Card 2/2

KOL'CHENKO, G.

How does the pension group work. Okhr. truda i sets. strakh. no.3:
87-88 S '58. (MIRA 12:1)

1.Predsedatel' fabrichnogo komiteta Kiyevskoy obuvnoy fabriki №.4.
(Pensions)

STOLETOV, A.G.; TIMIRYAZEV, A.K., prof., red.; KOZHENKO, O.N., red.;
AKHLMOV, S.N., tekhn. red.

[Collected works] Sobranie sochinenii. Monkva, Gos. izd-vo
tekhniko-teoret. lit-ry. Vol. 3. [Introduction to acoustics and
optics. Heat theory] Vvedenie v akustiku i optiku; Teoriia teploty.
1947. 623 p. (MIRA 11:11)

(Sound)
(Optics)
(Heat)

KUZNETSOV, A.P., otv. red.; MALIKOV, M.F., zasluzhennyy deyatel' nauki i tekhniki, prof., red.; BARINOV, V.A., doktor tekhn. nauk, prof., red.; LEONOV, B.M., red.; MALIKOV, S.F., kandi. tekhn. nauk, red. KOL'CHENKO, G.N., red.

[Hundred years of the state weights and measures service in the U.S.S.R.] Sto let gosudarstvennoi sluzhby mer i vesov v SSSR. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1945. 376 p. (SSSR. Gosudarstvennye standarty) (MIRA 14:7)

1. Russia(1923- U.S.S.R.) Komitet standartov, mer i izmeritel'-nykh priborov.
 2. Predsedatel' Komiteta po delam mer i izmeritel'-nykh priborov pri Sovete Narodnykh Komissarov SSSR (for Kuznetsov)
 3. Chlen Komiteta po delam mer i izmeritel'nykh priborov pri Sovete Narodnykh Komissarov SSSR (for Leonov)
- (Weights and measures)

KOL'CHENKO, N.A.

On active participation of students during the geography
classes in the schools for working youth. Geog. v shkole
26 no.5:50-52 S-0 '63. (MIRA 16:11)

1. Shkola rabochey molodoshi No. 17 Volgograda.

PICHUGIN, Pavel Vasil'yevich; KOLCHENKO, N.I., red.; MASLENNIKOVA, T.L.,
tekhn. red.

[How the policy of the CPSU has ensured the complete and decisive
victory of socialism in the U.S.S.R.] Rol' politiki KPSS v obes-
pechenii polnoi i okonchatel'noi pobedy natsializma v SSSR. Mo-
skva, Izd-vo Mosk. univ., 1961. 76 p. (MIRA 14:8)
(Russia—Economic policy)

KUMACHENKO, Ya.S., prof., red.; KOLCHENKO, N.I., red.; MASLENNIKOVA,
T.A., tekhn. red.

[Studies in the economics of socialism] Ocherki po politekonomii
sotsializma. Pod red. IA.S.Kumachenko. Moskva, Izd-vo Mosk. univ.,
1961. 175 p.
(MIRA 14:9)

1. Moscow. Institut povysheniya kvalifikatsii prepodavateley
obshchestvennykh nauk. Kafedra politicheskoy ekonomii.
(Economics) (Communism)

PROKOPENKO, Nikolay Il'ich; SHEVTSOV, N.S., prof., ovt. red.; KOLCHENKO,
N.I., red.; LAZAREVA, L.V., tekhn. red.

[CPSU in the struggle for preparing the mass collective-farm
movement, 1927-1929] KPSS v bor'be za podgotovku massovogo kol-
khoznogo dvizheniya, 1927-1929 gg. Moskva, Izd-vo Mosk. univ.,
1961. 182 p.
(MIRA 15:3)

(Communist Party of the Soviet Union—Party work)
(Collective farms)

RACHKOV, Petr Alekseyevich; KOLCHENKO, N.I., red.; YERMAKOV, M.S.,
tekhn. red.

[Science and social progress] Nauka i obshchestvennyi prog-
ress. Moskva, Izd-vo Moskovskogo univ., 1963. 329 p.
(Science and civilization) (MIRA 16:9)

KOL'CHENKO, N. V., Cand Tech Sci -- "Certain problems in
the construction of settlements ^{of lumbering} ~~in the lumber~~ enterprises."
Mos, 1961. (Min of Higher and Sec Spec Ed RSFSR. Mos Order
of Labor Red Banner Eng-^{Const} Inst im V. V. Kuybyshev. Chair
of ~~Const~~ Const) (KL, 8-61, 244)

ACC NR: AT6036597

SOURCE CODE: UR/0000/66/000/000/0230/0232

AUTHOR: Kol'chenko, N. V.; Mldavskaya, S. I.; Krasyuk, A. N.

ORG: none

TITLE: Elimination of some of the consequences of extremal factors by means of gradual acclimatization to alpine conditions (Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966)

SOURCE: Nonferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 230-232

TOPIC TAGS: ionizing radiation biologic effect, high altitude physiology, alpine acclimatization, central nervous system, blood chemistry, hypoxia

ABSTRACT:

The effect of alpine acclimatization in stages on persons with symptoms of small doses of ionizing radiation (erythrocyte counts below 4 ml/mm^3 and decreased hemoglobin, thrombocyte, and leukocyte counts; appearance of the sympathetic asthenia syndrome; and disturbances in the functional state of higher nervous activity) was studied.

Card 1/3

ACC NR. AT6036597

Acclimatization by stages took place at elevations of 2100 m (Terskol), 3000 m (Novyy Krugozor), 3400 m (105 Piket), and 3700 m (Ledovaya Base Camp). Studies performed included: peripheral blood indices, oxyhemography nervous process lability, and work capacity cortical neurons. It was found that phased alpine acclimatization improved hematopoiesis, vascular system function, nervous process lability, and the work capacity of cortical neurons. At 2100 m erythrocyte and hemoglobin counts decreased during the first 6 days, then began to rise. By the 10th day, the erythrocyte count had reached the preacclimatization level and osmotic resistance of the erythrocytes increased; thrombocyte and leukocyte counts rose and the granulocyte formula shifted to the left. At 3000 m, the erythrocyte count and hemoglobin reached normal values, the hematocrit erythrocyte volume increased, and osmotic resistance exceeded that observed at 2100 m. The reticulocyte count increased, the reticulocyte formula shifted to the left, and the leukocyte increase levelled off. At higher altitudes, the counts of all red blood elements, and of thrombocytes and leukocytes continued to increase. Some subjects showed mild lymphocytosis. During descent, also accomplished by stages, the amount of formed blood elements at first decreased, but began to increase during a stopover at an altitude of 2100 m.

Blood oxygen saturation varied by 1% to 2% (increasing at 2100 m and

Card 2/3

ACC NR: AT6036597

decreasing at 3700 m and after descent to 3000 m). The AB sector of oxyhemograms fell when the breath was held. During acclimatization systolic pressure increased slightly at 2100 m. At greater elevations this index increased gradually.

By the 10th day at 2100 m, nervous process lability and cortical neuron work capacity had improved considerably in all subjects. On the 3d day at 3000 m, lability and work capacity decreased, but remained higher than initial levels (before the expedition). By the 5th day at this altitude, greatly improved work capacity and restoration of nervous process lability were seen. At 3700 m, these indices at first fell off, but were fully restored by the 5th day. After descent in stages to 2100 m, lability and neuron work capacity stabilized at levels higher than seen at that altitude during the ascent.

Thus, phased alpine acclimatization is suggested as a promising treatment for victims of mild ionizing radiation poisoning.

[W. A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3

L 31932-66 EWT(1) SCTB DD
ACC NR: AP5018347

SOURCE CODE: UR/0245/65/000/004/0133/0139

AUTHOR: Khil'chenko, A. Ye.; Moldavskaya, S. I.; Kol'chenko, N. V.; Shevko, G. N.

ORG: Institute of Physiology im. A. A. Bogomol'tsa, AN UkrSSR, Kiev (Institut fiziologii AN UkrSSR)

TITLE: The effect of hypnopedia (natural sleep) teaching methods on the efficiency of the cerebral cortex

SOURCE: Voprosy psichologii, no. 4, 1965, 133-139

TOPIC TAGS: hypnopedia, psychologic stress, conditional reflex

ABSTRACT: This study verifies the effect of hypnopedia teaching on the efficiency of the cerebral cortex as expressed by reactions to two sets of visual stimuli: simple geometric figures and short, written words. The experiment was carried out under standard conditions on fifteen subjects in the same age group, having the same educational background, and being taught by hypnopedia methods; a control group of fifteen subjects being taught by conventional methods was tested simultaneously. In the experiments, subjects were instructed to press buttons in response to simple geometric figures (circle, square, triangle). This test was considered to determine the responsiveness of the primary signal system. A second visual test involved pressing buttons to classify simple words according to whether they designated objects belonging to the

Card 1/2

L 31932-66

ACC NR: AP5018347

animal, vegetable or mineral kingdom. This experiment was designed to test responsiveness of the secondary signal system. The authors took the maximum speed at which subjects made no more than three errors per fifty stimuli as a criterion for nerve responsiveness. Efficiency of the cerebral cortex was taken to stand in inverse relationship to the number of errors per set of eight hundred stimuli. Both groups of subjects were tested three times: the experimental group at the beginning of, immediately after, and a month and a half after hypnopedia; the control group before and immediately after examinations and once again a month and a half later (after rest). Reaction time of the experimental group was also tested on the same three occasions. It was found that nerve responsiveness and cerebral cortex efficiency were not significantly altered in either group in regard to the primary signal system. With respect to the secondary signal system, however, statistically significant changes were noted: nerve responsiveness was reckoned at 0.977 for the experimental and 0.970 for the control group, cerebral cortex efficiency at 0.811 for the experimental and 0.784 for the control group. Responsiveness and efficiency returned to pre-experimental levels in both groups after a rest period of one and a half months. The authors therefore conclude that two months of hypnopedia has no specific harmful effect on brain function and in particular involves no more cerebral stress than intensive study by conventional methods. Orig. art. has: 3 figures.

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001

MT
Card 2/2

KOL'CHENKO, N.V.

Relation of peripheral motor chronaxy and the lability of basic
neural processes in the cerebral cortex in man. Fisiol.zhur. [Ukr.]
10 no.4:518-521 Jl-Ag '64. (MIRA 18:11)

1. Laboratoriya vyshey nervnoy deyatel'nosti Instituta fiziologii
im. Bogomol'tsa AN UkrSSR, Kiyev.

KHIL'CHENKO, A.Ye. [Khil'chenko, A.IE.]; MOLDAVSKAYA, S.I. [Moldavskaya, S.I.];
KOL'CHENKO, N.V.

Characteristics of the lability of the basic nervous system processes
in students of schools for mentally handicapped children. Fiziol.zhur.
[Ukr] 9 no.3:300-305 My-Je '63. (MIRA 18:1)

1. Laboratory of Higher Nervous Activity of Animals and Man of the
A.A.Bogomoletz Institute of Physiology of the Academy of Sciences of
the Ukrainian S.S.R., Kiyev.

KOL'CHENKO, N.V.

Effect of a conditioned motor defense reflex on the corresponding unconditioned reflex. Fiziol. zhur. [Ukr.] 7 no.6:784-792 N-D '61. (MIR) 15:3)

1. Laboratoriya vysshey nervnoy deyatel'nosti Instituta fiziologii im. A.A. Bogomol'tsa AN USSR, Kiyev.
(REFLEXES)

KHIL'CHENKO, A.Ye. [Khil'chenko, A.IE.]; MOLDAVSKAYA, S.I. [Moldavskaya, S.I.];
KOL'CHENKO, N.V.

Mobility of the basic nervous processes in children of various ages.
Fiziol. zhur. [Ukr.] 8 no.4:456-462 Jl-Ag '62. (MIRA 18:4)

1. Laboratory of the Higher Nervous Activity of Man and Animals of
the A.A.Bogomoletz Institute of Physiology of the Academy of Sciences
of the Ukrainian S.S.R., Kiev.

KOL'CHENKO, O., kand.tekhn.nauk

Use of an oscilloscope for choosing electronic components. Radio
no.12:15-19 D '60.

(MIRA 14:1)

(Cathode ray oscilloscope) (Electron tubes)
(Transistors)

KOL'CHENKO, G. F.

KOL'CHENKO, G. F. --"Measurement of High Frequency Power in the Industrial Heating Band." *(Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min of Higher Education USSR, Kiev Order of Lenin Polytechnic Inst, Chair of Theoretical Foundations of Radio Engineering , Kiev, 1955

SO: Knizhnaya Letopis', No. 25, 18 Jun 55

* For Degree of Candidate of Technical Sciences

9(2)

SOV/112-59-1-1745

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 1,
pp 246-247 (USSR)

AUTHOR: Kol'chenko, O. E.

TITLE: Measuring Power With a Diode-Tube Wattmeter

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Radiotekhnika, 1958, Nr 2,
pp 149-156

ABSTRACT: A scheme of a diode wattmeter using actual tubes is analyzed; the lower parts of the tube characteristics are approximated by a polynomial of the fourth power. Influence of higher harmonics upon the instrument reading, feasibility of a diode bipolar wattmeter, and use of modern heater tubes in the wattmeter are considered. From the author's summary.

Rekomendovna kafedroy teoreticheskikh osnov radiotekhniki,
Kiyevskogo ordena Lenina politekhnicheskogo instituta.

Card 1/1

ACC NR: AR7000953

SOURCE CODE: UR/0275/86/000/011/V004/V005

AUTHOR: Kol'chenko, O. F.

TITLE: Transistorized switch

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 11V34

REF SOURCE: Vestn. Kiyevsk. politekhn. in-ta. Ser. radiotekhn., no. 2, 1985,
203-208TOPIC TAGS: semiconductor diode, ~~transistor~~, transistorized circuit,
semiconductor key, ~~transistor~~, semiconductor diode key, SWITCHING CIRCUIT,
REFERENCE: BRIDGE

ABSTRACT: A description is given of a diode key which does not require an additional stable voltage source. The circuit consists of a bridge with semiconductors and two diodes connected to the bridge diagonal, to which two control voltages are fed. The signal and the load resistor are connected to the other diagonal. The maximum of a signal switched without distortion is determined by the equality between the control current and the signal current flowing through the diodes of the adjacent arms of the bridge. An equality between the control voltages (in the absence of a signal) results in a locking of all the bridge diodes.

Card 1/2

UDC: 621.38:621.37

APPROVED FOR RELEASE

KOL'CHENKO, O. T.

USSR/Biology Botany

Card : 1/1

Author : Kol'chenko, O. T.

Title : The raspberry in the southeast

Periodical : Priroda, 43/7, 114 - 115, July 1954

Abstract : The finding of raspberry plants in the southeastern part of the Soviet Union is recounted, along with a description of the special characteristics of the plants in this region.

Institution :

Submitted :

KOL'CHENKO, O.T.

IVANOV, V.V.; KOL'CHENKO, O.T.

Study of the natural overgrowth of slopes and scarps in the
Caspian Depression (phytomesilication of banks). Biul. MOIP,
Otd. biol. 59 no. 6: 45-48 E-D '54. (MIRA 8:2)
(Caspian Depression—Botany)

KOL'CHENKO, O.T., Cand Bio Sci—(diss) "Geobotanical outline of the
nearest ^{Regions} ~~towns~~ of Ural'sk." Ural'sk, 1958. 16 pp (Saratov State U. im
N.G.Chernyshevskiy), 150 copies (KL, 49-58, 122)

-31-

IVANOV, V.V. (g.Ural'sk); KOL'CHENKO, O.T. (g.Ural'sk)

Mushroom flora of western Kazakhstan. Bot.shur. 45 no.6;
903-904 Je '60. (MIRA 13:7)
(West Kazakhstan Province--Mushrooms)

9.4300 (1147, 1151, 1155)
24.2200 1164, 1180, 1138

21210
8/188/61/000/001/005/009
B108/B209

AUTHORS: Chechernikov, V. I., Kol'chenko, V. G.

TITLE: Temperature dependence of the paramagnetic susceptibility of copper-cadmium ferrites

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya 3, fizika, astronomiya, no. 1, 1961, 36-39

TEXT: In order to check the correctness of Neel's hyperbolic law of the temperature dependence of the paramagnetic susceptibility for high temperature, the authors studied copper-cadmium ferrites containing cadmium ferrite of normal spinel structure. The ferrites were prepared from Fe_2O_3 , CuO, and CdO powders which were mixed with ethyl alcohol for 44 hr. Subsequently, the mixture was dried, sifted, and mixed with poly-vinyl alcohol. Samples were pressed at 3 tons/cm², annealed at 1050°C for 3 hr, and slowly cooled to room temperature. The cylindrical samples (1.5 mm high) were examined between 300 and 1400°K, using the Faraday-Sucksmith method (Ref. 4: Sucksmith W. Proc. Roy. Soc., A170, 551, 1939). Fig. 1 shows the temperature dependence of the reciprocal molar para-

Card 1/4.

Temperature dependence of the...

21210
S/188/61/000/001/005/009
B108/B209

magnetic susceptibility of various copper-cadmium ferrites between their respective ferromagnetic Curie points and 1400°K. It is seen that with rising CdO content in the ferrite, the curves are gradually straightened. On the basis of experimental data, the authors determined the constants in Neel's law. Fig. 2 shows a comparison of the theoretical curves, as calculated with these constants and Neel's law, and the experimental ones. Finally, the authors studied the dependence of the constants (σ , $1/\chi_0$, θ , C) in Neel's law (Ref. 3: Neel L. Ann. Phys., 2, 137, 1948) on the percentual content of cadmium ferrite ($\text{CdO}\cdot\text{Fe}_2\text{O}_3$) in the composite ferrite. They found that all the constants decrease with increasing content of cadmium oxide. The results show that the paramagnetic susceptibility of the ferrites under discussion follows Neel's law in the range of high temperatures. [Abstracter's note: In the original legends to the figures, the symbol Gd should read Cd]. There are 4 figures and 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Kafedra magnetizma (Department of Magnetism)

SUBMITTED: July 27, 1960

Card 2/4

Temperature dependence of the...

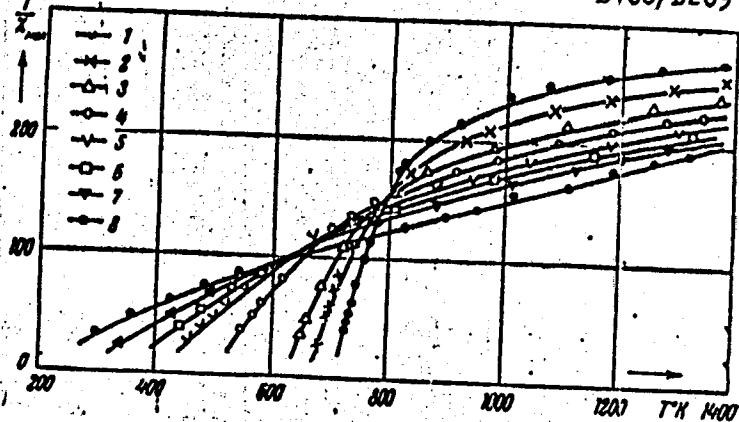
S/188/61/000/001/005/009
B108/B209

Fig. 1

Legend to Fig. 1: (1) $\text{Fe}_2\text{O}_3 \cdot \text{CuO}$; (2) $\text{Fe}_2\text{O}_3 \cdot 0.9\text{CuO} \cdot 0.1\text{GdO}$;
(3) $\text{Fe}_2\text{O}_3 \cdot 0.8\text{CuO} \cdot 0.2\text{GdO}$; (4) $\text{Fe}_2\text{O}_3 \cdot 0.6\text{CuO} \cdot 0.4\text{GdO}$; (5) $\text{Fe}_2\text{O}_3 \cdot 0.5\text{CuO} \cdot 0.5\text{GdO}$;
(6) $\text{Fe}_2\text{O}_3 \cdot 0.4\text{CuO} \cdot 0.6\text{GdO}$; (7) $\text{Fe}_2\text{O}_3 \cdot 0.3\text{CuO} \cdot 0.7\text{GdO}$; (8) $\text{Fe}_2\text{O}_3 \cdot \text{GdO}$.

Card 3/4

22121

8/056/61/040/003/001/031
B111/B202

24.2200

AUTHORS: Chechernikov, V.I., Kol'chenko, V.G.

TITLE: Antiferromagnetic properties of cobaltous oxide

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki,
v. 40, no. 3, 1961, 721 - 724

TEXT: The authors studied the magnetic susceptibility of CoO between 100 - 700°K. The temperature dependence showed a sharp peak at 292°K. Furthermore, the authors determined the dependence of susceptibility on the magnetic field in antiferromagnetic state and in the region of the antiferromagnetic Curie point. The authors determined the dependence of the magnetic susceptibility on the magnetic field strength H in CoO because the dependence mentioned in the references (J.Phys. et Radium, 12, 765, 1951; ZhETF, 32, 1119, 1957; J. de Phys., 12, 170, 1951) was different in other substances. This fact has hitherto not been fully explained. Magnetic susceptibility was determined by measuring the force acting upon a sample which has been brought into an inhomogeneous magnetic field. The

X

Card 1/7 >

22121
S/056/61/040/003/001/031.
B111/B202

X

Antiferromagnetic properties ...

force was measured by determining the deformation of an elasical circular ring consisting of beryllium bronze. For a mass of 10 - 25 mg of the sample the point of the scale denotes a value of $\sim 10^{-7}$. The low temperatures of about 100°K were produced by evaporating liquid nitrogen. By means of quartz threads the sample was freely suspended in a double-wall glass tube. The individual chambers were filled with nitrogen vapor in order to keep the temperatures as constant as possible. The temperature was measured by means of a copper-constantan thermocouple. The studies were made with magnetic field strengths of up to 18,000 oe. The antiferromagnetic Curie point (292°K) is independent of the external magnetic field. If the curve in Fig. 1 is extrapolated until the absolute zero is attained a magnetic susceptibility of $\sim 55 \cdot 10^{-6}$ is obtained. Above 470°K the curve shown in Fig. 2 obeys the Curie-Weiss law. The authors obtained $C = 3.05$ for the Curie-Weiss constant, $P_p = 4.97$ for the atomic magnetic moment, and $\Theta_p = -270^{\circ}\text{K}$ for the paramagnetic Curie point. L.D. Landau is mentioned. There are 4 figures and 11 references: 2 Soviet-

Card 2/4 >

Antiferromagnetic properties ...

S/056/61/040/003/001/031
B111/B202

bloc and 9 non-Soviet-bloc. The 2 most recent references to English language publications read as follows: J. R. Singer, Phys. Rev., 104, 929, 1956; W. Sucksmith, Proc. Roy. Soc., A 170, 551, 1939.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet
(Moscow State University)

SUBMITTED: January 29, 1960 (initially)
October 31, 1960 (after revision)

Card 3/7 3

CHECHERNIKOV, V.I.; KOL'CHENKO, V.G.

Antiferromagnetic properties of cobalt oxide. Zhir. eksp. i teor. fiz. 40 no.3:721-724 Mr '61. (MIRA 14:8)

1. Moskovskiy gosudarstvenny universitet.
(Cobalt oxide—Magnetic properties)

L 60211-65 EMT(4)/EMT(1)/EBC(k)-2/EEC-4/EEC(c)-2/EEI-2/EKA(h) Pn-4/Pc-4/Pac-4/
Pae-2/Peb GS
ACCESSION NR: AT5013569 UR/0000/04/000/000/0212/0222

AUTHOR: Brusilovskiy, K. A. (Candidate of technical sciences); 38
Kolchenogov, L. S.; Nuzhdina, L. A.; Popov, V. S. BT/

TITLE: Converter of resistance into electric-oscillation period

SOURCE: AN SSSR. Institut elektromekhaniki. Avtomatika, telemekhanika i priborostroyeniye (Automatic control, remote control, and instrument manufacture). Moscow, Izd-vo Nauka, 1964, 212-22!

TOPIC TAGS: converter, ⁸telemetering, telemetering converter, resistance frequency converter, analog converter

ABSTRACT: A description, an error analysis, and the results of an experimental investigation are presented of an analog converter (a laboratory model) that turns electrical resistance into a proportional period of a-c oscillations. The converter includes an RC generator, a Wien bridge, and an amplifier. Two frequency-dependent bridge arms, which constitute an L-shaped quadripole, serve as a positive-feedback circuit to the generator; the remaining two arms, as a

Card 1/2

L 60211-65

ACCESSION NR: AT5013569

negative-feedback circuit. A TP2/0.5 thermistor is used as a nonlinear resistor. A linear relation between the input resistance and output period is claimed. The error, at high amplifier gains, is largely due to the variation of capacitances in the Wien bridge. The deviation of the output period, when the converter is used as a thermometer, is determined by the temperature coefficient of the resistance thermometer and by the measurand range. The possibility of attaining an overall system error of about 0.1% at an ambient temperature of $-20 \pm 30^\circ\text{C}$ and a supply-voltage variation of $\pm 10\%$ is claimed. Orig. a.t. has: 4 figures and 1 diagram.

ASSOCIATION: none

SUBMITTED: 24Oct64

ENCL: 00

SUB CODE: DP, EC

NO REF SOV: 005

OTHER: 000

Card 2/2

KOLCHENOV, P. D.

(DECEASED)

1963/2

o' 1961

MEDICINE
surgery

see ILO

KOLOCHENOGOVA, I. P.

"An Investigation of the Processes of Radiant Heat Exchange With the Use of Light and Flame." Cand Tech Sci, Power Engineering Inst imeni G. M. Krzhizhanovskiy, Acad Sci USSR, 13 Dec 54. (VM, 3 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: SUM No. 556, 24 Jun 55

KOLCHENOGOVA, I.P.

AID P - 2392

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 6/15

Authors : Filimonov, S. S., Khrustalev, B. A. and Kolchenogova, I.P.,
Kand. Tech. Sci.

Title : Research on heat transfer in boiler furnaces

Periodical : Teploenergetika, 7, 30-33, J1 1955

Abstract : Tests made on heat transfer in specially-built furnaces
are described. A comparison is made with standard
equipment. According to the results reported, convective
heat transfer is desirable for furnaces of small dimen-
sions. The standard design of the boiler unit appears
to be unsatisfactory for some types of furnaces. Four
diagrams. Seven Russian references, 1949-1954.

Institution: Power Institute of the Academy of Science, USSR

Submitted : No date

KOLCHENOGOVA, I.P. (Moskva); SHORIN, S.N. (Moskva)

Study of radiation energy transmission in attenuating media. Iss.
AN SSSR. Otd.tekh.nauk no.5:29-39 My '56. (MLRA 9:8)
(Heat--Radiation and absorption)

2401) PHASE I BOOK EXPLOITATION 307/2026

Academy наук СССР. Energeticheskaya Institut

Toploperedacha i toplopreoborona modelirovaniye (Heat Transfer and Modeling of Heat Processes). Moscow, Izd-vo Akademiya Nauk SSSR, 1959. 419 p. Frontispiece inserted.

Bapt. M., N. A. Nizhnikov, Academician; Ed. G. N. Shevchenko. Author: D. A. Tsvetkov; Tech. Ed.: G. N. Shevchenko.

PURPOSE: The book is intended for scientists concerned with heat transfer, heat radiation, and hydraulics of liquid metals, etc.

CONTENTS: This collection is dedicated to the memory of Academician V. V. Kurnikov who in the twenties initiated a systematic investigation of heat transfer processes and the efficiency of various apparatus. Later he led the development of research work in this field. Two special collections devoted to works of Kurnikov's school have been published, one in 1938, Relatively comprehensive by Shevchenko (Materials of the Conference on Modeling), and in 1952, Thirty-podobny i modelirovaniye (Theory of Stability and Modelling).

The present collection prepared in 1956 represents the continuation of the work of this school. This theory is of great importance for the analysis of many heat problems in the field of electrical and radio engineering. Of great importance are the results of extensive investigations of heat transfer and the properties of liquid metals which as a new kind of heat carrier now form the basis of various branches of modern engineering. As a result of these investigations of some class of convective heat transfer, a dependence of the process on the kind of liquid, temperature, pressure, direction of the heat flow, and other factors was discovered and established. On the basis of a wide range of experimental data, new dependable recommendations were developed. Or no less important is the work on heat transmission in boiling liquids and condensation of vapors. All investigations based on the theory of stability, the nature of convection, according to N. V. Kurnikov, is that of "experimentation." Work on the theory of convection applied to a series of fields with an internal source of heat is of interest for the future.

Shevchenko, S. M., G. L. Poljak, I. P. Tikhonchukova, V. N. Afanasev, et al. - Verschayye, svet, modelirovaniye i radiatsiya v opisanii reaktorov i pochetnykh sredakh (Fundamentals of the Theory of Radiation and Light Transfer in Reactors and Other Media). It describes sources of light and changes of illumination given a photographic method for measuring streams of light. Investigations of radiation exchanges in cylindrical, spherical and in banks of pipes, transfer of radiation energy in 12 time mixed media, local illumination of walls of reactor vessels, bottom of open reactors (furnaces) are described. The following methods of calculating fluxes are given: S. V. Vinogradov (approximate solution of optical equations), Yu. S. Kuznetsov (approximate solution of optical equations), N. V. Kirpichev (investigation of radiation transfer in light models), Iu. A. Yushko (light modeler), G. N. Polyak, and S. M. Shein (theory of radiation exchanges), and with the cooperation of V. V. Kurnikov, V. V. Tsvetkov, and V. V. Kurnikov. The section on "Photographic methods of measurement of light streams" was compiled by V. V. Tsvetkov and G. N. Polyak. The section "Investigation of the transfer of radiation energy in an illuminated medium" was compiled by I. P. Tikhonchukova, S. M. Shein and V. N. Afanasev. Measurements of Local Illumination of Walls of Models of Nuclear Reactors and Investigation of Local Illumination of the Surface of an Open-hearth Furnace were compiled by O. N. Tereshkov and I. N. Dobrova. There are 27 references in Soviet, 5 English and 3 German.

AVAILABILITY: Library of Congress

CIA 20/20

374M
B-7-99

KOLOCHNOGOVA, I.P.; SHORIN, S.N.

Intensification of heat exchange during the burning of gas. Gas.
prem. 4 no.2:27-33 F '59. (MIRA 12:3)
(Heat--Transmission) (Gas as fuel)

26.5300
25545

S/123/61/000/011/032/034
A004/A101

AUTHOR: Kolchenogova, I. P.

TITLE: Investigating the possibilities of intensifying the radiant heat exchange in combustion chambers

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 11, 1961, 10, abstract 11173 ("Tr. V Konferentsii molodykh uchenykh. Energ. in-t AN SSSR, Vol. 2". Moscow, 1960, 51-66)

TEXT: The author presents the investigation results of intensifying the heat exchange in high-temperature heat exchangers with the aid of indirect emitters, i. e. solid bodies located in the hot gas stream (e.g. in the form of a cylindrical cup adjusted along the flow direction and three transverse emitters). By introducing emitters, the fraction of radiant heat flow increases up to 70% with longitudinal and 75% with transverse emitters (60% without emitters). The heat transfer in the combustion chamber increases on the average by 40% if transverse emitters are mounted, while the waste flue gas temperature decreases by some 300°C. The role played by the indirect emitters as heat exchange intensifiers will be the more significant the higher the coefficient of convective heat

Card 1/2

25545
Investigating the possibilities ...

S/123/61/000/011/032/034
A004/A101

transfer to the emitter surface, the degree of blackness and the emitting surface size, and the lower the absorption factor of the medium. If emitters are used, the increase in the radiant components of the heat flow on account of the radiation of the solid body is of an indirect nature, since it takes place to a considerable degree as a result of the convective heat absorption by the emitter surface. Therefore, the effect of hydrodynamics of the flow on the heat exchange, if there are emitting solid bodies, can even increase. The location of the indirect emitters in the cooling chamber makes it possible to reduce considerably the dimensions and volume of flame heat exchangers. There are 16 figures and 6 references.

M. Shur

[Abstracter's note: Complete translation]

Card 2/2

ACCESSION NR: AP4000397

S/0294/63/001/001/0017/0023

AUTHORS: Khrustalev, B. A.; Kolchenogova, I. P.; Rakov, A. M.TITLE: Spectral radiation coefficients for tantalum, molybdenum
and niobium

SOURCE: Teplofizika vy*sokikh temperatur, v. 1, no. 1, 1963, 17-23

TOPIC TAGS: temperature measurement, optical pyrometry, tantalum,
molybdenum, niobium, radiation, radiative heat transfer, high tem-
perature, radiation coefficient, radiation spectrum

ABSTRACT: The purpose of the investigation was to determine, for purposes of optical pyrometry, the emission coefficients of the materials, which were determined for the effective wavelength 0.65 micron corresponding to the spectral region accommodated by the KS-filter and the human eye. The radiation coefficients were determined over a wide range of temperatures for different surface conditions of the investigated material. The average measurement accuracy was 14.6% near 1000C and 5% near 2000C. The mean square deviation

Card 1/2

ACCESSION NR: AP4000397

of the experimental points from their averaging curves was 3.2, 6.2, and 6.1% for tantalum, molybdenum, and niobium, respectively, and is in good coordination with the maximum relative error. The orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Energeticheskiy institut im. G. M. Krzhizhanovskogo
(Power Engineering Institute)

SUBMITTED: 17May63 DATE ACQ: 13Dec63 ENCL: 01

SUB CODE: AS NO REF Sov: 004 OTHER: 010

Card 2/3

KRUPALEV, B. A.; RAKOV, A. N.; DOKTOROV, A. A.; KOLCHUGOOVA, Z. F.

"Investigation of radiation coefficients of heat-resistant materials."
report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk,
4-12 May 1964.

O. M. Krzhizhanovskiy Power Inst.

L 07558-67 EWT(1)/EWP(m) WW/GD

ACC NR: AT6029316

SOURCE CODE: UR/0000/66/000/000/0134/0150

AUTHOR: Adrianov, V. N.; Khrustalev, B. A.; Kolchenogova, I. P.

54
B+1

ORG: none

TITLE: Radiative-convective heat transfer of a high temperature flow of gas in a channel

SOURCE: Moscow. Energeticheskiy institut. Teploobmen v elementakh energeticheskikh ustroystv (Heat exchange in power installation units). Moscow, Izd-vo Nauka, 1966, 134-150

TOPIC TAGS: radiative heat transfer, convective heat transfer, gas flow

ABSTRACT: The article is devoted to a combined theoretical and experimental treatment of the problem of complex heat transfer between a high temperature gas flow and the cold surface of a channel. The theoretical analysis arrives at a method for determining the quantities which enter into the dimensionless relationship describing the process. For the experimental investigation, a special apparatus was built to study radiative-convective heat transfer during the movement of the products of the combustion of a gaseous fuel in cylindrical channels. The article gives a diagram of the experimental apparatus. Four series of experiments were carried out in channels of different diameters. The experimental results are exhibited in extended tables. On

Card 1/2

L 07558-67

ACC NR: AT6029316

the basis of the experimental data, the following relationship was arrived at:

$$\theta = \exp \left\{ -A\varphi [1 + (1 - \varphi)^{0.1} (16.3 Re_w^{0.16} - 70) K_{pw}^{0.45}] \right\}. \quad (22)$$

Here θ is the dimensionless temperature of the gases; ψ is a temperature simplex; K_{pw} is the radiation criterion. Orig. art. has: 24 formulas, 5 figures and 2 tables.

SUB CODE: 20/ SUEM DATE: 05Apr66/ ORIG REF: 019/ OTH REF: 003
21/

Card 2/2 nat

Kolchev, A.

Some recommendations by specialists on processing hemp and flax stems. p. 43

TEKSTILNA PROMISHLENOST, Sofia, Bulgaria, Vol. 8, no. 4, 1959

Monthly list for East European Accessions (EEAI) LC. Vol. 8, no. 10, Oct. 1959

Uncl.

S/120/61/000/001/048/062
E194/E184

AUTHORS: Kozelkin, V.V., and Kolchev, B.S.

TITLE: Measurement of Instability of Accelerating Voltage
in Electron Microscopes ⁶

PERIODICAL: Pribory i tekhnika eksperimenta, 1961 No.1, pp.161-163

TEXT: In electron microscopes high stability of accelerating voltage is one of the main conditions of obtaining high resolution. For resolutions of 10-12 Å the stability of the accelerating voltage should be better than 0.003-0.005%. It is difficult to measure such small instability although it is necessary to do so both in the manufacture and in the use of electron microscopes. In measuring the voltage instability a resistance voltage divider is applied to the output of the microscope high voltage rectifier. The divider must be of high resistance and good insulation resistance because of the high voltages involved. Variations in output voltage of the rectifier reduced in proportion to the ratio of the voltage divider are applied to the input of a d.c. amplifier which is connected in series with the battery to compensate for the voltage drop on the low voltage arm of the

Card 1/4

S/120/61/000/001/048/062
E194/E184

Measurement of Instability of Accelerating Voltage in Electron Microscopes

voltage divider so that the amplitude of the voltage on the d.c. amplifier is zero when there are no variations in the output voltage of the high voltage rectifier. If the amplification of the amplifier is made equal to the ratio of the voltage divider a voltmeter connected to the amplifier gives direct readings of the voltage variations on the high voltage supply. The low voltage arm of the voltage divider which is in the grid circuit of the first valve of the d.c. amplifier should not be more than 1 to 2 megohms, the currents through the voltage divider should not be too high, and in practice not over 50 to 100 microamps, and accordingly the voltage divider ratio should be in the range of 400 to 1000. The authors did not design a special amplifier but used a standard low frequency cathode ray oscilloscope type 9HO-1 (EN0-1). The vertical deflection amplifier of this oscilloscope has a band width of 0 - 10^6 c/sec which is quite satisfactory for measurements of instability. The input resistance of the oscilloscope is disconnected. The unit was devised to

Card 2/4

S/120/61/000/001/048/062
E194/E184

Measurement of Instability of Accelerating Voltage in Electron Microscopes

compensate the d.c. component of the input signal and for simultaneous calibration of the oscilloscope; the circuit is given in Fig.2. The measuring circuit can often be connected directly to the voltage divider contained in the electronic stabiliser of the electron microscope. It is first necessary to check the stability of the circuit used to measure instability of the main supply. This is done by connecting the apparatus not to the lower part of the voltage divider but to a resistance and battery. The method of calibrating the oscilloscope is briefly explained. Typical test results are given and in a voltage supply of 40 kV voltage variations during a minute were 16.5 V which corresponds to an instability of 0.04%. If the stabiliser is in good condition the instability should not exceed 0.003%. There are 4 figures and 3 references: 2 Soviet and 1 German.

SUBMITTED: January 13, 1960

Card 3/4

S/048/63/027/003/021/025
B105/B238

AUTHORS: Il'in, M. M., Solov'yev, A. M., Verteser, V. N.,
Dutov, G. G., Kolchey, B. S., and Tuporkov, S. A.

TITLE: A commercial MAP-1 (MAR-1) instrument for X-ray
microanalysis

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,
v. 27, no. 3, 1963, 420-426

TEXT: This paper describes in detail a new MAP-1 (MAR-1) X-ray micro-analyzer developed and tested in the Krasnogorskii mehanicheskiy zavod (Krasnogorsk Machine Plant). The instrument consists of the recorder and of the microanalyzer itself, comprising the electrooptical system providing the electron probe, 2 X-ray spectrometers, a specimen chamber with an optical microscope, the electrical input circuit, and the vacuum system. The electron source is a three-electrode gun with an automatic negative shift. The optical microscope makes it possible to observe the surface of the specimen at a magnification of 450 X, the resolution being < 1 μ . The non-vacuum spectrometer analyzes X-rays with a wave-

Card 1/2

8/048/63/027/003/021/025
B106/B238

A commercial ...

length of up to 1.5 Å, and the vacuum spectrometer those from 1.5 to 10 ° Å. The spectra are analyzed using Johann's method. The Bragg angles range from 18 to 40°. The analyzer crystals are (1340) quartz crystals with a radius of curvature of 500 mm. The diameter of the X-ray source is 1-2 μ; this value depends on the diameter of the electron probe, which is c 1μ. The amperage in the focussed probe, is about 10^{-6} A and the current stability amounts to 0.5 % per hour. The instrument makes determinations on the specimen possible in the 1 - 2 μ range. When the specimen is impermeable the change in the Bragg angle of the elements from Mg to U can be determined by using both spectrometers. The distribution of the element in the specimen to be determined in the given direction can also be determined. This is done by displacing the specimen under the electron probe with an electric motor at a fixed Bragg angle corresponding to a characteristic frequency. The dispersion and sensitivity of the instrument were studied; the sensitivity in an analysis of copper via the K doublet was < 0.1 %. There are 8 figures.

Card 2/2

SOLOV'YEV, A.M.; VERTSNER, V.N.; IL'IN, M.M.; TOPORKOV, S.A.; KOLCHEV, B.S.;
DUTOV, G.G.

Industrial X-ray spectral microanalyser MAR-1. Izv. AN SSSR.
Ser. fiz. 27 no.9:1162-1165 3 '63. (MIRA 16;9)
(X-ray spectroscopy)

KOLCHEV, G.

"City Conference in Chirpan", p. 4. (TEKHNICHESKO DELO, Vol. 5, no. 110, Sept. 1953, Sofiya, Bulgaria).

SO: Monthly List of East European Accessions, LC, Vol.3, No. 4, April 1954.

BAKALOVA, L.; BRATANOV, Br.; SEPETLIEV, D.; KEREKOVSKI, Iv.; KOLCHEV,
Khr.; CHOBANOVA, St.

Studies of the nutrition of children in the Pleven District.
Pts. 1-2. Izv Inst khranene BAN 3:211-226 '64.

TREIMAN, S.; KOLCHEV, Khr.

Immediate results of early correction of ineffective pneumothorax.
Suvrem. med., Sofia 5 no.8:97-101 1954.

1. Is Okrushnata protivotuberkozna bolnitsa. Gabrovo. Gl. lekar:
K.Yuglenov.

(PNEUMOTHORAX, ARTIFICIAL,
failure, early correction)

L KOL CH OV H
BULGARIA/Chemical Technology. Chemical Products and Their Application. Part 3. - Drugs. Vitamins. Antibiotics.

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 71754.

Author : L. Kolchev.

Inst :

Title : Qualitative Determination of Analgesic in Medicinal Shapes.

Orig Pub: Farmatsiya (Bulg.), 1957, 7, No 2, 40-42.

Abstract: The determination consists in the following:
3 to 5 drops of dilute H_2SO_4 is put on a watch glass and heated carefully, and 1 drop of fuchsin-sulfurous acid solution (Schiff's reagent) and 1 drop of the solution to be tested are added. The appearance of violet-black color indicates

Card : 1/2

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000723720015-4

BULGARIA/Chemical Technology. Chemical Products and Their Application, Part 3. - Drugs. Vitamins. Antibiotics. H

Abs Jour: Referat. Zhurnal Khimiya, No 21, 1958, 71754.

The identification of the analgesic drugs is based on the presence of analgesic (the detectable minimum is 250 µg). The reaction proceeds rapidly, it is very characteristic and specific and it can be carried out in a drug store.

Card : 2/2

Kolchev, L.

BULGARIA/ Analytical Chemistry. Analysis of Organic Substances. G-3

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27257.

Author : L. Kolchev.

Title : Application of Ammonium Thiocyanocobaltate for Fractional Detection of Pyramidon and Antipyrine.

Orig Pub: Farmatsiya (Bulg.), 1956, 6, No. 4, 47 - 30.

Abstract: In order to prepare the $(\text{NH}_4)_2\text{Co}(\text{SCN})_4$ solution, 1.45 g of $\text{Co}(\text{NO}_3)_2$ and 5 g of NH_4SCN are dissolved in water and diluted to make 20 ml. 0.02 or 0.03 g of the preparation under study is dissolved in 1 or 2 drops of water, 1 or 2 drops of the reagent are added; a bluish-azurish amorphous precipitate is forming; if 1 drop of 1%-ual HCl is added, this precipitate will convert into cry-

Card 1/2

BULGARIA/ Analytical Chemistry. Analysis of Organic Substances. G-3

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27257.

stalline form or remain amorphous depending on the present ingredients. The description of precipitates, the detectable minima and the limit dilution are enumerated for antipyrine (after the addition of HCl the precipitate remains amorphous, the detectable minimum is 250 γ , the limit dilution is 1 : 200), pyramidon (after the addition of HCl the precipitate becomes crystalline; the detectable minimum is 250 γ , the limit dilution is 1 : 200), novocaine chlorohydrate, quinine, cocaine, papaverine dichlorohydrate, dionine chlorohydrate, codeine phosphate and salipyrine. The method is applicable to the analysis of a series of medicinal preparations. Antipyrine and quinine interfere with the detection of pyramidon.

Card 2/2

KOLCHEV, Mikh.

Modulation amplifier for amateur transmitters. Radio i tele-
vizia 13 no.1:3-9 '64.

KOLCHEV, N.

KOLCHEV, N. Formation of rings in the rotary kilns for cement clinkers and the struggle for their elimination. P. 52.

Vol. 5, no. 10, 1956
TEZHKA PROMISHLENOST
TECHNOLOGY
Sofia, Bulgaria

So: East European Accession, Vol. 6, no. 3, Mar. 1957

KOLCHEV, N. A. (Assistant, Orenburg Agricultural Institute)

"Influence of feeding liquid and crystal terramycin upon the laying capacity of ducks"

Veterinariya, vol. 39, no. 8, August 1962, p. 64

KOLCHEV, N.A., assistant

Effect of feeding liquid and crystalline terramycin on the egg
production of ducks. Veterinariia 39 no.8:64-67 Ag '62.
(MIRA 17:12)

1. Orenburgskiy sel'skokhozyaystvennyy institut.

PETROV, V.P., prof.; KOLCHEV, N.A., assistant

Economic effectiveness of the use of tissue preparations.
Veterinariia 41 no.8:10-11 Ag '64.

(MIRA 18)

1. Orenburgskiy sel'skokhozyaistvennyy institut.

POPOV, N.I.; KOLCHEV, V.A.; UKHANOV, S.P.; BABANSKIY, Yu.K.,
(Rostov-na-Donu).

Survey of school activities. Fiz. v shkole 16 no.6:91-92
N-D '56. (MLRA 9:12)

1. 2-ya shkola imeni A.P. Chekhova, g. Taganrog (for Popov)
2. 15-ya srednyaya shkola Yugo-Vostochnoy zheleznoy dorogi
(for Kolchev) 3. 7-ya srednyaya shkola, Vologda (for Ukhonov).
(Physics--Study and teaching)

Ko Le Her, V.A.

PHASE I BOOK EXPOSITIONS

SOV/3602

Ahdmedya nuk ssmn. Institut Metallurgii

Yakaldeyev slyavshch metalloj, tomik 2. (Analiza of nonferrous Metal Alloys). Collection of Articles, [Ed.] 2. Naukova, Izd-vo AS SSSR, 1950. 204 p. Private copy printed.

Ed. 1. I.M. Otrus, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House V.D. Matanov. Tech. Ed. - P.P. Palamarchuk. Editorial Board: A.V. Borovik, Academician; M.F. Drits, Candidate of Technical Sciences (Deputy Rep. Ed.); K.V. Saburov, Professor, Doctor of Technical Sciences; I.L. Radzner, Candidate of Technical Sciences (Rep. Secretary); A.M. Korol'kov, Doctor of Technical Sciences; N.V. Matusevich, Professor, Doctor of Technical Sciences; and Z.I. Siderdzhikova, Candidate of Technical Sciences.

PURPOSE: This collection of articles is intended for workers in scientific research laboratories, metal and machine works, for teaching personnel, and for students attending schools of higher education.

Cover Note: This is the second volume in a series of "Analiza of nonferrous Metal Alloys" prepared by the Institute metallurgy, Izd-vo AS SSSR. Chairman of Metallurgy Soviet of the Academy of Sciences (USSR) and the Head of the Soviet Union Scientific Council on Nonferrous Metals and Gold (Izdatel'stvo Institute of Nonferrous Metals and Gold, Izd-vo Akademii Nauk SSSR). The book discussed concerns the casting and physical metallurgy of nonferrous alloys. The effect of alloying and determination of the properties of various alloys and the problems connected with the study of the casting properties of various alloys are mentioned. In addition, the plotting of phase diagrams for nonferrous alloys are mentioned. No publications are mentioned. References correspond to the date.

Hopkins, S.J., and G.P. Bandellos. The Behavior of Alloys in Certain Heat Treatments.

Bogdan, N.I., Z.I. Siderdzhikova, and F.S. Astanina. The Effect of Silicon on Properties of the Die Alloy at Room Temperature and at Elevated Temperature.

Izotov, V. Fein, Z.I. Siderdzhikova, A.I. Yashchenko, and N.I. Radchenko. Comparative Study of Heat Treatment of the Alloy Cu-Zn-Ni and Ni-Cu-Zn. 20

Vorontsov, G.S., and V.P. Likhachev. The Effect of a Annealed Heat Treatment on the Mechanical Properties of Die Alloy at Room Temperature and Elevated Temperatures. 21

Dobro, I.P. The Milling of Bends Developing Between Adjoining Metal Surfaces in Pressure Treatment. 22

Siderdzhikova, Z.I., N.P. Druts, A.A. Yashchenko, and N.I. Radchenko. The Effect of Cold Treatment on the Properties of Some Aluminums. 23

Alloy Sanded by "ust Treatment". 24

Lebedeva, V.A., T.N. Golubkina, and G.M. Pastukhova. The Application of High Temperature Dosegrinding in the Extraction of Large Die-Alloy Samples. 25

Siderdzhikova, Z.I., and I.P. Dobro. Milling of Die-Alloy. 26

Strel'tsova, G.O., N.I. Radchenko, and I.P. Dobro. Milling of Die-Alloy. 27

Lazarev, Z.I., and Yu. I. Kravchenko. Correlation of Structure and Growth of Cracks and Corresponding Mechanical Properties of Die-Alloy. 28

Khokhlov, V.P., and Yu. I. Kravchenko. The Effect of Heat Treatment on the Mechanical Properties of Die-Alloy. 29

Fedorov, V.I., and Yu. I. Kravchenko. Use of the Method of Extruding the Solid Phase Area in Setting Presses. 30

Lebedeva, V.A., and N.A. Myshkina. Surface Treatment of Metals and Alloys. 31

Khokhlov, V.P., and N.A. Myshkina. Surface Treatment of Metals and Alloys. 32

KOLCHEV,V.V.

Vitamin A content of main commercial fish and seals of the Volga-Caspian Sea basin. Vit.res. i ikh isp. no.1:182-206 '51.
(MLRA 8:12)
(VITAMINS--A) (CASPIAN SEA REGION--FISHES) (CASPIAN SEA REGION--(ANIMALS))

YUDITSKAYA, A.I.; KOLCHEV, V.V.

The chemical nature of the process of preparation of protein product
from codfish. Rybnoe khoz. 29, No.6, 57-9 '53. (MLRA 6:6)
(CA 47 no.19:10043 '53)

KOLCHEV, V.V.; NIKOLAYEVA, N.Ye.

Removing the residues of solvent from protein tissues degreased by dichloroethane. Izv. vys. ucheb. zav.; pishch. tekhn. no.2:67-71 '60. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii, laboratoriya zhivot, kormovykh produktov i nerybnykh ob'yektorov.

(Solvents)

(Fat)

(Proteins)

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4

KOLCHEVA, B.

Soil microflora along a profile line between Svishtov and
Troyan. Izv Inst "Nikola Pushkarov" 6:101-113 '63.

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723720015-4"